UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,057	11/25/2003	Sven Bernhard	11884/408001	4191

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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/720,057	BERNHARD ET AL.
	Examiner	Art Unit	
	Phuong N. Hoang	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 July 2007</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 14, 16 - 20* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 14, 16 - 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 14, 16 - 20 are pending for examination.

2.   This office action is in response to amendment filed 7/5/07.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   **Claims 1 – 5, 7 - 9 are rejected under 35 U.S.C. 102(a) as being anticipated**

by Senator, US patent no. 6,385,663.

5.   **As to claim 1**, Senator teaches a method comprising:

providing an interface (abstract layer interface (HAL), abstract, col. 2 lines 1 – 15,

col. 3 lines 45 – 65) to access a plurality of peripheral devices (peripheral devices,

abstract, col. 1 lines 45 – 55, col. 3 lines 45 – 60) the interface being independent

(abstract layer interface (HAL) such as DDI/DKI interface 28 is independent between

operating system and peripheral devices, abstract, col. 2 lines 1 – 15, col. 3 lines 45 –

65) of specific features of the peripheral devices, the interface having a plurality of

generic routines (generic interfaces, col. 4 lines 10 – 30) commonly shared by the

peripheral devices;

upon receipt of a request (data requested, col. 3 lines 45 - 67), calling the generic

routines as a function of specific features of a requested one of the peripheral devices;

and

causing a native driver of the requested one of the peripheral devices to execute

(device drivers, figures 2 - 4 and associated text).

6.   **As to claims 2 - 3**, Senator teaches wherein the providing an interface includes:

providing a plurality of parameters (the I/O operations, times, size and types of

operations for the calls, col. lines 15 – 25).

7.   **As to claim 4**, Senator teaches upon the execution of the driver, accessing the

requested peripheral device (peripheral device 36 – 40, figure 2 and associated text).

8.   **As to claim 5**, Senator teaches upon receipt of another request, using the interface to call the generic routines as a function of specific features of another requested one of the peripheral devices (col. 4).

9.   **As to claim 7,** Senator teaches wherein the request is a request from an application to connect to the requested peripheral device (col. 3 lines 45 - 65).

10.   **As to claim 8**, Senator teaches wherein the request is a request from an application to disconnect from the requested peripheral device (close, col. 6 lines 55 – 65).

11.   **As to claim 9**, Senator teaches wherein the request is a request from the requested peripheral device to connect (col. 4 - 5) to an application to provide the application with data acquired by the requested peripheral device.

12.   **Claims 14, 16 - 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Treptow, US pub. no. 2002/0138564.**

13.   **As to claim 14**, Treptow teaches a system comprising:

at least one peripheral device (printer, 0005) having associated therewith a native driver (printer driver); and

a mobile computer (laptop) configured to provide an interface (abstract interface) used by an application to access the at least one peripheral device, use the interface to call a plurality of routines (layout commands, 0005) as a function of the device-specific features of the peripheral device and to cause the native driver, installed on the computer driver (laptop to have printer device driver, 0005), to execute and control the peripheral device (directs the print process, 0069), the interface being independent of device-specific features of the at least one peripheral device.

14.   **As to claim 16**, Treptow teaches wherein the mobile computer is further configured, upon receiving a request (job request, 0077, 0098).

15.   **As to claim 17**, Treptow teaches wherein the computer is further configured to receive a request from the peripheral device to provide data to the application (the print out, 005).

16.   **As to claim 18**, Treptow teaches wherein the computer is further configured,

upon receiving a request to access the at least one peripheral device, to use the

interface to call a plurality of routines as a function of the device-specific features of the

at least one peripheral device, and upon receiving a request to access a second

peripheral device (the second of various printers, 0005), to use the interface to call the

plurality of routines as a function of the device-specific features of the second peripheral

device.

17.   **As to claim 19**, Treptow teaches a second mobile computer (PDA, 0005), having

the application ported thereto, configured to access a different peripheral device (any

printer) with the application, wherein the application on the second mobile computer

uses the interface to access the different peripheral device without modifying the

application.

18.   **As to claim 20**, Treptwo teaches wherein the mobile computer uses the interface

to limit communication with the at least one peripheral device to one request at a time (a

specific printer, 0005).

Claim Rejections - 35 USC § 103

19.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

20.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Senator, US patent no. 6,385,663 in view of Lemon, US patent no. 5,379,431.

21.   **As to claim 6**, Lemon wherein the peripheral devices include a printer (printer,

col. 3 lines 15 – 25), a scanner, an imager, a smart card reader, and a barcode reader.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teaching of Senator and Lemon's system because

Lemon would provide a variety of peripheral devices for Senator's I/O operations for the

system (col. 3 lines 55 – 65).

22.   Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over

Senator, US patent no. 6,385,663 in view of Dorris, US patent no. 5,867,710.

23.   **As to claim 10**, Dorris teaches providing an emulator to simulate access to the

peripheral devices in order to test the interface (HAL test, title, abstract, col. 1, figures 3

and 4 and associated text).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teaching of Senator and Dorris's system because the

test would make sure the devices would properly operate with the interface (col. 2 lines 20 – 35).

24.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Senator, US patent no. 6,385,663 in view of Treptow, US pub. no. 2002/0138564.

25.   **As to claim 11**, Treptow teaches providing a graphical user display (figure 2 and associated text) to allow a user to select the peripheral devices to be accessible by the interface; and providing native drivers corresponding to the selected peripheral devices.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Senator and Treptow's system because graphic user display would show users which peripheral devices accessible, and user can interact with system.

26.   Claim 12 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treptow, US pub. no. 2002/0138564 in view of Lemon, US patent no.5,379,431.

27.   **As to claim 12**, Treptow teaches a method comprising:

generic routines to connect to peripheral devices independent of device-specific features of the peripheral devices (abstract interface of print server, abstract, 0005);

receiving a request (printer request/event, abstract, 0005, 0008, 0009) to access one of the peripheral devices;

determining whether the requested peripheral device is accessible (determines which one of the three printing will be used, 0077);

if the request is a request to connect a computer to the requested peripheral device (an application .... Print process for the document, 0069, 0084), cause requested peripheral device to execute.

if the request is a request from the requested peripheral device to send data to the computer (two-way communication between the target printers to the print server, abstract); notifying (notification, 0084) the computer that the requested peripheral device has the data, and sending the data from the requested peripheral device to the computer (finished printing).

Treptow does not explicitly teach the application is implemented in object oriented programming.

Lemon teaches the abstract interface for connecting peripheral devices (col. 11 lines 34 – 50, col. 5 lines 54 – 63 - col. 7 lines 30), that providing a connection class (class, col. 4, col. 5 lines 54 – 63 - col. 7 lines 30, col. 11 lines 34 – 50); instantiating the connection class to create an object (object is an instance of the class, col. 4) specific to the requested peripheral device, and connecting, through the driver (device driver, col. 17 lines 40 – 50), the computer to the requested peripheral device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Treptow and Lemon's system because the software program would be easily re-used and supports multi-platform operating system (col. 1 lines 20 – 45).

28.   **As to claim 13**, it would have been obvious to one of ordinary skill in the art at the time the invention was made to recognize that disconnecting the computer from the requested peripheral device when there is no printing request needed.

Response to Arguments

29.   Applicant's arguments with respect to claims 1 - 11 have been considered but are moot in view of the new ground(s) of rejection, and with respect to claims 14, 16 – 20 have been fully considered but they are not persuasive.

30.   Applicant argued that Treptow teaches a "driverless" print server system that does not read on the limitation "to cause the native driver, installed on the mobile computer, to execute and control the peripheral device.   In response, Treptow teaches the native driver installed on the mobile computer (mobile computer to have printer device driver, 0005), to execute and control the peripheral device (to enable the

operating to communicate with any printer and directs the print process (0005 and

0069). "driverless" is for specific printer, not for the mobile computer.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

31.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Phuong N. Hoang whose telephone number is

(571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to

5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Thomson can be reached on 571-272-3718. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ph
September 7, 2007

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER